AEOS Data API

Reference Guide v2.3

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1 CONTACTS

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2 DOCUMENT HISTORY

2.1 REVISION HISTORY

Version	Date	Author	Description
1.0	2021-07-29	Goran Penjin	Initial document version
1.1	2021-08-02	Goran Penjin	Document formatting
1.2	2021-08-25	Goran Penjin	API method version change
1.3	2021-09-10	Goran Penjin	Cosmetics
1.4	2021-09-18	Goran Penjin	Data module "get_ads_spotlist_new" added Updates to "deep_analysis_data" module
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2.0	2022-05-24	Goran Penjin	Complete API overhaul
2.1	2023-01-18	Goran Penjin	Method *getAdvertisementSpotlistReport* deprecated New method *initiateAdvertisementSpotlistReport* Update on response properties for all *initiate* data request methods
2.2	2024-02-22	Goran Penjin	New methods *initiateTopTenSpots, initiateTopTenEvents, initiateTopTenChannel, getReportData* Deprecated method *getDeepAnalysisReportData*
2.3	2025-02-28	Marko Bandalo	New reports added *INITIATENATIONALREPORT, InitiateRegionalReport* *InitiateBundeslandReport*

2.2 DOCUMENT REFERENCES

Reference Name	Document
V2.3	`AdScanner API sec v2.3`

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3 ALLEYESONSCREENS DATA API

3.1 INTRODUCTION

AEOS solutions are based on its own, in-house developed AI and big data algorithms that enable a wide spectrum of marketing and data solutions. The application ranges from the synchronization of TV and digital advertising, optimization of programming schemes and campaign effectiveness to completely new addressable TV campaigns. Our solutions are used by more than 50 clients in 5 European countries from various groups such as advertisers, regulatory bodies, TV companies, media agencies and telecom operators.

1. We answer three crucial questions to enable a data-driven approach to TV advertising
2. Who is advertising what, how much and when?
3. What is being watched by audiences? How does this influence business KPIs?

Our data-driven models and analysis provides the answers to above questions.

3.2 AEOS COCKPIT

A comprehensive dashboard integrating data from our own TV ad monitoring with proprietary audience measurement KPIs based on representative IPTV households. In addition to that, the cockpit has the ability to incorporate client-owned (e.g. sales, traffic) and third-party (e.g. weather) data streams in order to show correlations.

3.3 AEOS DATA API

APIs are the engine behind Cockpit product. The same APIs can be securely exposed to customers to provide greater flexibility and customization options. The APIs enable complex requests and provide data output which can be used for any kind of visualisation, reporting etc.

The basic API communcation workflow is pictured below:

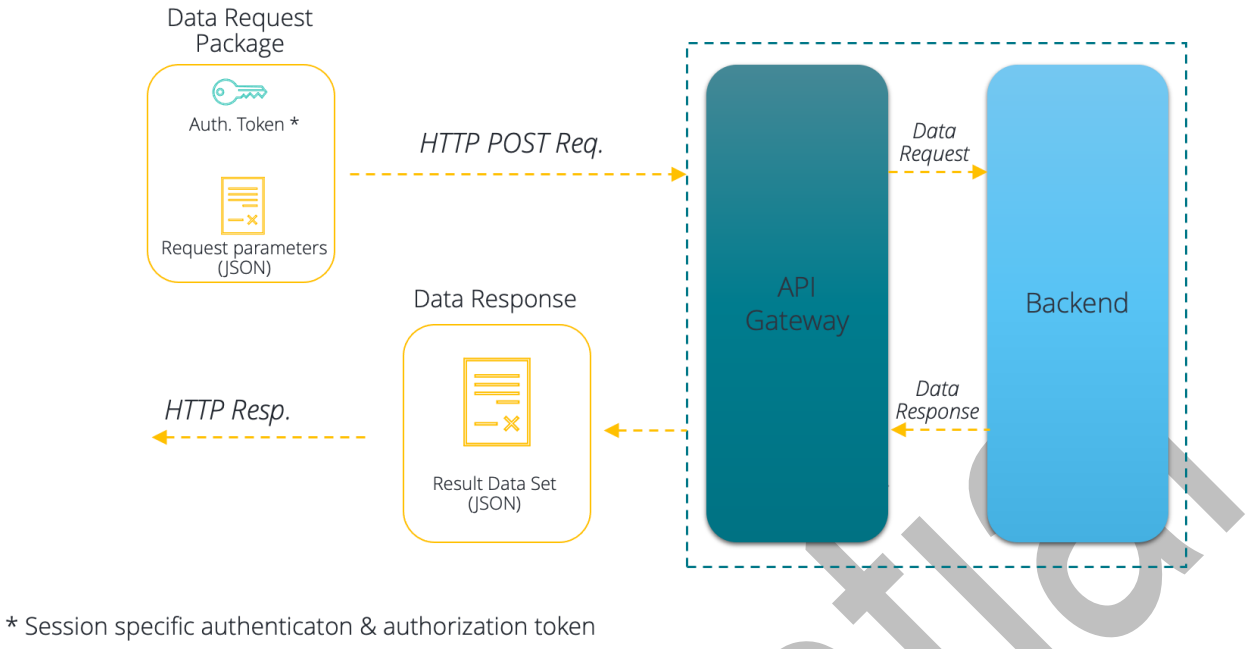

Image 1. AEOS Data API collection workflow

The API is segmented into modules which have distinct functionalities.

- *API Modules correspond to the modules available in the Cockpit.*
- *Target module is specified in the request package*
- *Each module has a specific list of request calls*
- *Request packet MUST contain JSON payload*

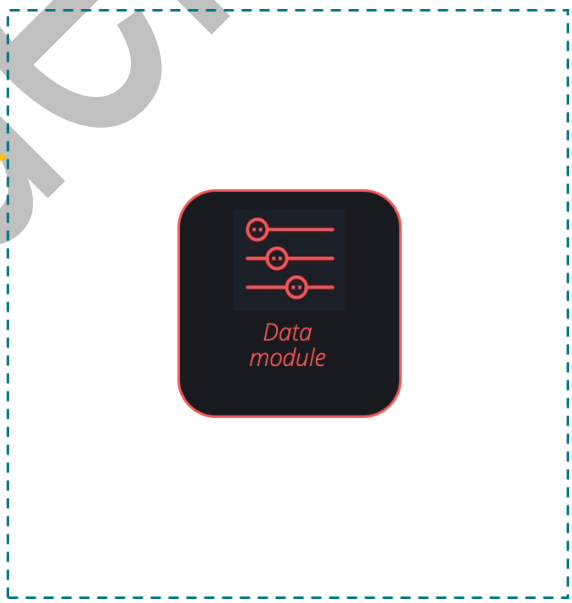

Image 2. AEOS Data API modules

4 API REFERENCE GUIDE

4.1 AUTH REQUEST

Each API communication session must start with "Auth Request". The role of Auth request is to authenticate and authorize external user for API use. This is achieved using Customer-specific App Key in the Auth request, which then generates session based token used for API communication during that session. Each session has expiration timeout, after which re-authentication is needed.

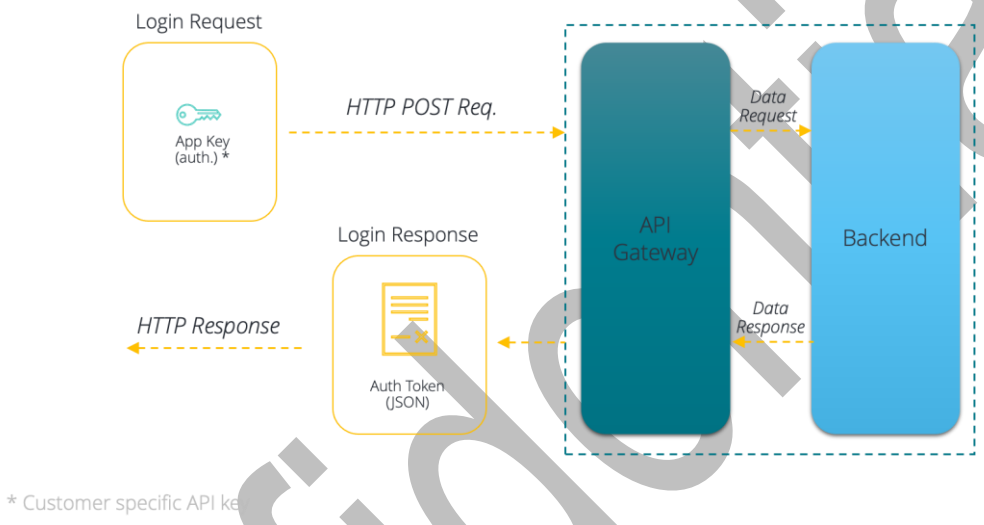

Image 3. AEOS AUTH request workflow

REQUEST	DATA (JSON PAYLOAD)	TARGET

HTTP POST	{
	"authparams":"[customer-specific api Key]",
	"authmethod":"apikey",
	"app":"apiv4"
	}
		https://api.adscanner.tv/auth/login

Table 1. AUTH request

RESPONSE	DATA SUCCESS	DATA FAIL

HTTP OK	{
	"refreshtoken": "[refresh token string]",
	"token": "[session security token]",
	"code": 0,
	"status": "New tokens generated"
	}
		{"error":"Invalid Parameters"}

Table 2. AUTH response

EXAMPLE:

```
Curl --data '{"authparams":"[customer-specific api Key]","authmethod":"apikey","app":"apiv4"}'
https://api.adscanner.tv/auth/login
```

Auth JSON response includes ***"token"*** value, which needs to be used in every subsequent Data request made to API.

Sessions automatically expire after 600 seconds (10 minutes), regardless of the activity.

4.2 DATA REQUEST MODULES

Data request modules provides access to datasets in AEOS platform, based on request parameters. Each request can be tailored to fit the customer needs, in order to extract relevant data sets.

The request MUST include payload in JSON format, even if there are no parameters passed to the API. If no parameters are needed for the request, you must send empty JSON data: („{ }“)

REQUEST	DATA	TARGET
HTTP POST	JSON data (see table below for individual request methods)	https://api.adscanner.tv/APIv4/<helper|report>/**{METHOD}**

Table 3. Data request – genral principle

{METHOD} defines functionality which is used for data retrieval. For list of methods available for please refer to chapter 4.3 Data request methods

RESPONSE	DATA SUCCESS	DATA FAIL
HTTP OK	JSON data (see table below for individual request methods)	{"error":"Invalid Parameters"}

Table 4. Data response – genral principle

EXAMPLE:

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X POST -H "Content-Type:application/json" -d "{JSON payload}" https://api.adscanner.tv/APIv4/<helper/report>/{METHOD}
```

Note: Authorization header must be constructed in the following way:

```
Authorization: Bearer {API session token}
```

The header contains word “Bearer”, followed by single space and session token generated in Login step.

AEOS API uses two types of methods: Helper methods and Data request methods. Helper methods are used to pull metadata information (i.e. industry type, Company name, brand, product, etc.), which is then used to construct specific data retrieval request package. (i.e. Reach for specific advertising campaign in specific time period, reach for specific advertising industry type, etc.)

4.3 DATA REQUEST METHODS

4.3.1 INITIATEDEEPANALYSISCHANNELEVENTREPORT

Method creates request for Channel Event report data from AEOS platform.

Request:

PROPERTY	TYPE	DEFAULT VALUE	DESCRIPTION	REQUIRED
"splitby"	string	"-1"	time based data segmentation	Yes (see table *Split by* for list of values)
"date_from"	date	-	date format YYYY-MM-DD	Yes
"date_to"	date	.	date format YYYY-MM-DD	Yes
"threshold"	string	"5sec"	contact threshold	Yes (use default)
"channels"	string array	[]	limit data to channels (list of IDs)	Yes (can be empty)
"profiles"	string array	[]	limit data to profiles (list of IDs)	Yes (can be empty, see method `getProfiles` for full list)
"dayparts"	string array	[]	limit data to dayparts	Yes (can be empty, see method `getDayParts` for full list)
"variables"	string array	["reach (%)"]	Type of analysis	Yes (cannot be empty, use one or more of the values from table *Variables)*
"showdataby"	string	"By Day"	option for data grouping	Yes (See table)
"epg_categories"	string array	[]	list of IDs of EPG categories	Yes (can be *empty*, see method *getEpgCategories* for list of IDs)

Table 5. *InitiateDeepAnalysisChannelEventReport* request properties

„Variables" property values correspond to the same property available in Benchmark, Channel Performance and Deep Analysis section of the Cockpit. Table below lists all accepted values and types of reports

VARIABLE	USED IN	DESCRIPTION
"amr-perc"	Channel / Event Analysis	Average percentage of households who have watched a specific event or day part.
"reach (%)"	Channel / Event Analysis, Advertising Analysis	Percentage of different households which have seen at least five seconds of a specific channel or an event.
"reach-avg"	Channel / Event Analysis	Average daily RCH of selected period
"share"	Channel / event Analysis	Proportion of households viewing a specific channel, or a program, compared to the total number of households watching TV during the same interval of selected period.
"ats-avg"	Channel / Event Analysis	Daily average number of minutes that household spent watching a specific channel or a program. Based on the reach of analysed Channel or Event
"atv-avg"	Channel / Event Analysis	Daily average number of minutes that household spent watching a specific channel or a program. The base includes all the households, those who are watching and those who are not watching.
"airings"	Advertising Analysis	Total number of aired ads
"xrp"	Advertising Analysis	Exact Rating Point. AEOS version of the GRP: the sum of all Gross Rating Points (total contacts) based on individual contact
"minutes"	Advertising Analysis	Total duration of aired ads
"spend"	Advertising Analysis	Estimated cost per advertisement, cumulative for selected period

Table 6. "*variables*" values

„Split by" property is used in the same way in the Cockpit, the function is to provide time segmentation of the resulting data set.

Table below lists all accepted values for property „*splitby*" and types of reports

SPLIT BY	DESCRIPTION
"-1"	Default value. No specific time split used.
"1 second"	Split data report by 1 second segments
"1 minute"	Split data report by 1 minute segments
"5 minutes"	Split data report by 5 minute segments
"15 minutes"	Split data report by 15 minute segments
"30 minutes"	Split data report by 30 minute segments
"1 hour"	Split data report by 1 hour segments

Table 7. "*split_by*" values

„showdataby" property is used in the same way in the Cockpit, the function is to provide time segmentation of the resulting data set.

Table below lists all accepted values for property *„showdataby"* and types of reports

SHOWDATABY	DESCRIPTION
"By Day"	Default value. Result dataset is split by day
"By weekday"	Result dataset is aggregated by weekday
"By calendar week"	Result dataset is aggregated by calendar week
"By calendar month"	Result dataset is aggregated by calendar month
"epgid"	Result dataset is aggregated by EPG show
"period"	Result dataset is aggregated across entire period, i.e. 7 days

Table 8. "*showdataby*" values

Table below lists all accepted values for property *„groupby_category"* and types of reports

GROUPBY_CATEGORY	DESCRIPTION
"Industry overview"	Result dataset is split by Industry
"Category overview"	Result dataset is split by Category
"Subcategory overview"	Result dataset is split by Subcategory
"Company overview"	Result dataset is split by Company
"Brand overview"	Result dataset is split by Brand
"Product overview"	Result dataset is split by Products
"Channel overview"	Result dataset is split by Channels
"Preferred placement overview"	Result dataset is split by placement in ad blocks
"Daypart overview"	Result dataset is split by dayparts

Table 9. "*groupby_category*" values

When a proper Data request package is created, it will return the Identifier of the report which must be used by getDeepAnalysisReportData method to fetch the results of the report.

Response:

RESPONSE	TYPE	DESCRIPTION
"status"	String	Status of report creation (true or false)
"report_id"	Integer	ID of the report request
"pending_reports"	Integer	Number of sent requests which have not yet started executing (in queue)

"running_reports"	Integer	Number of reports executing at the moment

Table 10. *InitiateDeepAnalysisChannelEventReport* response properties

Report data response fomat conforms to the following structure:

PROPERTY	TYPE	DESCRIPTION
"body"	array	Array of fields containing report data. Only values, no keys
"header"	array	Array of fields containing column description data (key names corresponding to values in "body" property). Each array item is a collection of key-value pairs.

Table 11. *InitiateDeepAnalysisChannelEventReport* response properties

PROPERTY	TYPE	DESCRIPTION
"key"	string	Header item, contains long name of data column
"item"	string	Header item, contains short name of data column
"format"	string	Header item, optional. Contains format of data field
"offset"	integer	Header item, optional, internal use
"parent"	string	Header item, optional, internal use
"warning"	boolean	Header item, optional, internal use

Table 12. *InitiateDeepAnalysisChannelEventReport* header response properties

4.3.2 INITIATEDEEPANALYSISADVERTISINGREPORT

Method creates request for Channel Event report data from AEOS platform.

Request:

PROPERTY	TYPE	DEFAULT VALUE	DESCRIPTION	REQUIRED
"date_from"	date	-	date format YYYY-MM-DD	Yes
"date_to"	date	.	date format YYYY-MM-DD	Yes
"channels"	string array	[]	limit data to channels (list of IDs)	Yes (can be empty)
"profiles"	string array	[]	limit data to profiles (list of IDs)	Yes (can be empty, see method `getProfiles` for full list)
"dayparts"	string array	[]	limit data to dayparts	Yes (can be empty, see method `getDayParts` for full list)

"variables"	string array	["reach (%)"]	Type of analysis	Yes (cannot be empty, use one or more of the values from table *Variables)*
"frequency"	string	"1+"	user interacted with the selected object (channel, ad, ….) at least once	Yes (use default)
"industries"	string array	null	list of Ids of industries	Yes (can be *null*, see method `getIndustries` for list of IDs)
"categories"	string array	null	list of Ids of categories	Yes (can be *null*, see method `getCategories` for list of IDs)
"subcategories"	string array	null	List of IDs of subcategories	Yes (can be *null*, see method `getSubcategories` for list of IDs)
"showdataby"	string	"By Day"	option for data grouping	Yes (See table)
"epg_categories"	string array	[]	list of IDs of EPG categories	Yes (can be *empty*, see method *getEpgCategories* for list of IDs)
"companies"	string array	null	list of IDs of companies	Yes (can be *null*, see method *getCompanies* for list of IDs)
"brands"	string array	null	list of IDs of Brands	Yes (can be *null*, see method *getBrands* for list of IDs)
"products"	string array	null	list of IDs of Products	Yes (can be *null*, see method *getProducts* for list of IDs)
"groupby_category"	string array	null	Group output dataset by category	Yes (can be *null,* see table for a list of available options)
"placement"	string	"-1"	Placement of ad in block: any, first or last, first two or last two, first three or last three, single ad block)	Yes (values: "-1", "A-Z", "AB-YZ", "ABC-XZY", "S")

Table 13. Initiate*DeepAnalysisAdvertisingReport* request properties

Response (report accepted for creation):

RESPONSE	TYPE	DESCRIPTION
"status"	String	Status of report creation (true or false)
"report_id"	Integer	ID of the report request
"pending_reports"	Integer	Number of sent requests which have not yet started executing (in queue)
"running_reports"	Integer	Number of reports executing at the moment

Table 14. *initiateDeepAnalysisAdvertisingReport* response properties

When report_id is created with "true" status, the execution of the report can be followed using *getReportStatus* method.

Once report is finished, the data can be retrieved using *getDeepAnalysisReportData* method.

4.3.3 INITIATEADVERTISEMENTSPOTLISTREPORT

Method "initiateAdvertisementSpotlistReport" creates request for detailed list of advertisements aired on selected channel, filtered by selected paramaters (i.e. industry, company, etc.) for selected time period. The resulting list contains all attributes available for each advertisemet.

Request:

PROPERTY	TYPE	DEFAULT VALUE	DESCRIPTION	REQUIRED
"channels"	integer array	[]	limit data to channels (list of IDs)	Yes
"date_from"	date	-	date format YYYY-MM-DD	Yes
"date_to"	date	.	date format YYYY-MM-DD	Yes
"industries"	integer array	null	limit data to industries (list of IDs) Note: if "industries", "categories" or "subcategories" properties are used, do not use "companies", "brands", or "products" properties	No (remove if not used or use *null* value) see method *getIndustries* for full list)
"categories"	integer array	null	limit data to categories. Must be used with appropriate value for "Industries" property Note: if "industries", "categories" or "subcategories" properties are used, do not use "companies", "brands", or "products" properties	No (remove if not used or use *null* value) see method *getCategories* for full list per industry)
"subcategories"	integer array	null	limit data to subcategories. Must be used with appropriate values for "Industries" and "categories" property Note: if "industries", "categories" or "subcategories" properties are used, do not use "companies", "brands", or "products" properties	No (remove if not used or use *null* value) see method *getSubcategories* for full list per category)
"companies"	integer array	null	limit data to companies. Note: if "companies", "brands", or "products" properties are used, do not use "industries", "categories" or "subcategories" properties properties	No (remove if not used or use *null* value) see method *getCompanies* for list of companies
"brands"	integer array	null	limit data to brands. Must be used with appropriate value for "companies" property	No (remove if not used or use *null* value)

			Note: if "companies", "brands", or "products" properties are used, do not use "industries", "categories" or "subcategories" properties properties	see method *getBrands* for list of IDs per company
"products"	integer array	null	limit data to brands. Must be used with appropriate value for "brands" property Note: if "companies", "brands", or "products" properties are used, do not use "industries", "categories" or "subcategories" properties properties	No (remove if not used or use *null* value) see method *getProducts* for list of IDs)

Table 15. *initiateAdvertisementSpotlistReport* request properties

Please note: if invalid combination of "companies", "brands" and "products" are used, the resulting data set will be empty. Same applies for "industries", "categories" and "subcategories".

Response (report accepted for creation):

RESPONSE	TYPE	DESCRIPTION
"status"	String	Status of report creation (true or false)
"report_id"	Integer	ID of the report request
"pending_reports"	Integer	Number of sent requests which have not yet started executing (in queue)
"running_reports"	Integer	Number of reports executing at the moment

Table 16. *initiateAdvertisementSpotlistReport* response properties

When report_id is created with "true" status, the execution of the report can be followed using *getReportStatus* method.

Once report is finished, the data can be retrieved using *getDeepAnalysisReportData* method.

4.3.4 INITIATETOPTENSPOTS

Method "initiateTopTenSpots" creates request for list of top 10 advertisements by XRP score aired on any channel which is monitored for advertising, in selected time period. Time periods are predefined to "Yesterday" (previous calendar day, from 00:00 until 23:59:59) or "Last 7 days" (7 days including previous calendar day until 23:59:59). The resulting list contains main attributes for each ad, including XRP score, Brand, total number of airings, Company and Product. The resulting list also includes a list of names of channels which are monitored for advertising.

Request:

PROPERTY	TYPE	DEFAULT VALUE	DESCRIPTION	REQUIRED
"period"	string		Accepted values: one of "Yesterday" and "Last 7 days"	Yes

Table 17. *initiateTopTenSpots* request properties

Response (report accepted for creation):

RESPONSE	TYPE	DESCRIPTION
"status"	String	Status of report creation (true or false)
"report_id"	Integer	ID of the report request
"pending_reports"	Integer	Number of sent requests which have not yet started executing (in queue)
"running_reports"	Integer	Number of reports executing at the moment

Table 18. *initiateTopTenSpots* response properties

When report_id is created with "true" status, the execution of the report can be followed using *getReportStatus* method.

Once report is finished, the data can be retrieved using *getReportData* method.

4.3.5 INITIATETOPTENEVENTS

Method "initiateTopTenEvents" creates request for list of top 10 events by Share, aired on any channel, in selected time period. Time periods are predefined to "Yesterday" (previous calendar day, from 00:00 until 23:59:59) or "Last 7 days" (7 days including previous calendar day until 23:59:59). The resulting list contains main attributes for each Event, including name of event, id in AEOS platform, airing start date and time, channel name, event category and Share percentage.

Request:

PROPERTY	TYPE	DEFAULT VALUE	DESCRIPTION	REQUIRED
"period"	string		Accepted values: "Yesterday" or "Last 7 days"	Yes

Table 19. *initiateTopTenEvents* request properties

Response (report accepted for creation):

RESPONSE	TYPE	DESCRIPTION
"status"	String	Status of report creation (true or false)
"report_id"	Integer	ID of the report request
"pending_reports"	Integer	Number of sent requests which have not yet started executing (in queue)
"running_reports"	Integer	Number of reports executing at the moment

Table 20. *initiateTopTenEvents* response properties

When report_id is created with "true" status, the execution of the report can be followed using *getReportStatus* method.

Once report is finished, the data can be retrieved using *getReportData* method.

4.3.6 INITIATETOPTENCHANNEL

Method "initiateTopTenChannel" creates request for list of top 10 channels by Share, in selected time period. Time periods are predefined to "Yesterday" (previous calendar day, from 00:00 until 23:59:59) or "Last 7 days" (7 days including previous calendar day until 23:59:59). The resulting list contains name of channel, id in AEOS platform and Share percentage.

Request:

PROPERTY	TYPE	DEFAULT VALUE	DESCRIPTION	REQUIRED
"period"	string		Accepted values: "Yesterday" or "Last 7 days"	Yes

Table 21. *initiateTopTenChannel* request properties

Response (report accepted for creation):

RESPONSE	TYPE	DESCRIPTION
"status"	String	Status of report creation (true or false)
"report_id"	Integer	ID of the report request
"pending_reports"	Integer	Number of sent requests which have not yet started executing (in queue)

"running_reports"	Integer	Number of reports executing at the moment

Table 22. *initiateTopTenChannel* response properties

When report_id is created with "true" status, the execution of the report can be followed using *getReportStatus* method.

Once report is finished, the data can be retrieved using *getReportData* method.

4.3.7 GETREPORTSTATUS

Request:

PROPERTY	TYPE	DESCRIPTION	REQUIRED
"report_id"	Integer	Unique identifier of requested report	Yes

Table 23. *geReportStatus* request properties

This method returns the status of creating the requested report, with details like report type, report start time, state, etc.

Response:

RESPONSE	TYPE	DESCRIPTION
"report_id"	Integer	ID of te report request
"report_name"	String	Type of the report
"report_state"	string	State of creation of report
"report_start"	datetime	Date and time of start of report creation, with timezone
"report_end"	datetime	Date and time of completion of report, with timezone

Table 24. *getReportStatus* response properties

4.3.8 GETREPORTDATA

Request:

PROPERTY	TYPE	DESCRIPTION	REQUIRED
"report_id"	Integer	Unique identifier of requested report	Yes

Table 25. *getReportData* request properties

Returns report data based on the request successfully created and confirmed. Response format depends on the type of report which was requested. If the report is still being created, the request returns the status of creating the report

Response (report in progress):

RESPONSE	TYPE	DESCRIPTION
"status"	String	Status of report creation
"report_id"	Integer	ID of te report request

Table 26. *getReportData* response properties, report in progress

Report data response fomat conforms to the following structure:

PROPERTY	TYPE	DESCRIPTION
"body"	array	Array of fields containing report data. Only values, no keys
"header"	array	Array of fields containing respective column name and description for columns as they are presented in "body" property, following the order of columns Each array item is a collection of key-value pairs.
"report_id"	string	ID of the report

Table 27. *getReportData* response properties, report completed

Header property can contain the following items:

PROPERTY	TYPE	DESCRIPTION
"kpi"	string	Header item, contains KPI parameters used
"title"	string	Header item, title of the report
"formats"	string	Header item, optional. Contains format of data fields
"entities"	integer	Header item, list of entities used for filtering the report
"series_key_to"	string	Header item, optional, internal use
"report_created"	datetime	Header item, date and time of report creation
"series_key_from"	String	Header item, optional, internal use
"time_frame_data"	Date period	Header item, date period covered in the report
"formatting_offset"	Integer	Header item, optional, internal use
"not_formatting_cells"	string	Header item, optional, internal use

Table 28. *getReportData* header response properties, report completed

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X POST -H "Content-
Type:application/json" -d '{"report_id": 10179945}' https://api.adscanner.tv/APIv4/report/getReportData
```

RESPONSE: { "body": [{ "XRP": 985.3489, "Brand": "RTL", "Airings": 1075, "Company": "RTL Interactive", "Product": "RTL Plus" }, { "XRP": 538.5788, "Brand": "Kaufland", "Airings": 730, "Company": "Kaufland Dienstleistung", "Product": "Kaufland" }, { "XRP": 479.4591, "Brand": "Aktion Mensch", "Airings": 597, "Company": "Aktion Mensch", "Product": "Aktion Mensch Glücks los" }, { "XRP": 463.8916, "Brand": "Revolut", "Airings": 1403, "Company": "Revolut", "Product": "Revolut" }, { "XRP": 435.2261, "Brand": "Wirkaufendeinauto", "Airings": 1153, "Company": "WKDA", "Product": "wirkaufendeinauto" }, { "XRP": 430.0012, "Brand": "Carglass", "Airings": 697, "Company": "Carglass", "Product": "Carglass" }, { "XRP": 372.2788, "Brand": "Shop Apotheke", "Airings": 1095, "Company": "Shop-Apotheke", "Product": "Shop Apotheke" }, { "XRP": 356.5205, "Brand": "trivago", "Airings": 1274, "Company": "trivago", "Product": "trivago" }, { "XRP": 354.9629, "Brand": "Enpal", "Airings": 1386, "Company": "Enpal", "Product": "Enpal" }, { "XRP": 337.6707, "Brand": "Deutsche Postcode Lotterie", "Airings": 1611, "Company": "Postcode Lotterie DT", "Product": "Deutsche Postcode Lotterie" }], "header": { "kpi": ["xrp", "airinigs"], "title": "all eyes on screens", "formats": { "0": "@", "1": "@", "2": "@", "3": "", "4": "0.0000" }, "entities": [{ "key": "Companies", "values": null }, { "key": "Brands", "values": null }, { "key": "Products", "values": null }, { "key": "Industries", "values": null }, { "key": "Categories", "values": null }, { "key": "Subcategories", "values": null }, { "key": "Restrict by(Channel)", "values": "13TH STREET, SYFY, UNIVERSAL TV, SKY BUNDESLIGA 1, SKY BUNDESLIGA 2, SKY SPORT 1, SERVUS TV DE, DISNEY CHANNEL, SKY SPORT NEWS, DMAX, EUROSPORT 1, PROSIEBEN MAXX, PROSIEBEN, SAT.1 GOLD, VOX, TLC, SUPER RTL, ZDF, SAT.1, RTL, SPORT1, DAS ERSTE, KABEL EINS, SIXX, KABEL EINS DOKU, NITRO, RTLZWEI, N-TV, COMEDY CENTRAL, WELT, TELE 5, DELUXE MUSIC, SKY SPORT F1, MTV, N24 Doku, WARNERTV COMEDY, WARNERTV FILM, WARNERTV SERIE, NATIONAL GEOGRAPHIC, HISTORY, HOME AND GARDEN TV, NICK, SKY ONE, SKY CINEMA BEST OF, VOXUP, BILD, SKY SPORT BUNDESLIGA HD, DF1, SKY SPORT 10, SKY BUNDESLIGA 3, SKY BUNDESLIGA 8, SKY BUNDESLIGA 10, SKY BUNDESLIGA 7, SKY SPORT MIX, SKY SPORT TOP EVENT, SKY SPORT TENNIS, SKY SPORT GOLF, SKY SPORT 7, SKY SPORT 4, SKY SPORT 9, SKY BUNDESLIGA 5, SKY SPORT 2, SKY SPORT 8, SKY SPORT PREMIER LEAGUE, SKY SPORT 3, SKY SPORT 5, SKY SPORT 6, SKY BUNDESLIGA 9, SKY BUNDESLIGA 6, SKY BUNDESLIGA 4, RTLUP" }, { "key": "Restrict by(Advertiser)", "values": "Main advertiser" }, { "key": "Data source", "values": "Total" }], "series_key_to": "Date", "report_created": "2024-02-27 15:57:58", "series_key_from": "Date", "time_frame_data": "2024-02-20 - 2024-02-27", "formatting_offset": 1, "not_formatting_cells": null }, "report_id": "10179945" }

4.4 HELPER METHODS

4.4.1 GETINDUSTRIES

Request:

PROPERTY	TYPE	DESCRIPTION	REQUIRED
"filter"	string	filter text value	Yes (can be empty string)

Table 29. *getIndustries* request properties

Returns a list of industries defined in AEOS platform. The list can be filtered by sending "filter" property in the request JSON. Filter can be empty string, in which case it will return all available industries.

Response:

RESPONSE	TYPE	DESCRIPTION
"value"	integer	ID of the Industry Object. 0 represents "Select all"
"caption"	string	Name of the industry object

Table 30. *getIndustries* response properties

EXAMPLE:

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X POST -H "Content-Type:application/json" -d '{"filter":"pet"}' https://api.adscanner.tv/APIv4/helper/getIndustries
```

RESPONSE: [{"value": 0, "caption": "Select all"},{"value": 19,"caption": "PET AND ANIMAL RELATED PRODUCTS"}]

4.4.2 GETCATEGORIES

Request:

PROPERTY	TYPE	DESCRIPTION	REQUIRED
"filter"	string	filter text value	Yes (can be empty string)
"values"	array	list of IDs of Industries	Yes (must include specific industry ID

Table 31. *getCategories* request properties

Returns a list of categories defined in AEOS platform, specific to selected industry or for all industries. The list can be filtered by sending "filter" property in the request JSON. Filter can be empty string, in which case it will return all available categories. The request MUST include "values" property, which cannot be empty.

Response:

RESPONSE	TYPE	DESCRIPTION
"value"	integer	ID of the Category Object. 0 represents "Select all"
"caption"	string	Name of the Category object

Table 32. *getCategories* response properties

EXAMPLE:

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X POST -H "Content-Type:application/json" -d '{"filter":"alc","values":[2]}'
https://api.adscanner.tv/APIv4/helper/getCategories
```

RESPONSE: [{"value": 0, "caption": "Select all"},{"value": 6, "caption": "Alcoholic Drinks"},{"value": 16, "caption": "Non-alcoholic Drinks"}]

4.4.3 GETSUBCATEGORIES

Request:

PROPERTY	TYPE	DESCRIPTION	REQUIRED
"filter"	string	filter text value	Yes (can be empty string)
"values"	array	list of IDs of categories	Yes (must include specific category ID

Table 33. *getSubcategories* request properties

Returns a list of subcategories defined in AEOS platform, specific to selected category or for all categories. The list can be filtered by sending "filter" property in the request JSON. Filter can be empty string, in which case it will return all available subcategories. The request MUST include "values" property, which cannot be empty.

Response:

RESPONSE	TYPE	DESCRIPTION
"value"	integer	ID of the Subcategory Object. 0 represents "Select all"
"caption"	string	Name of the Subcategory object

Table 34. *getSubcategories* response properties

EXAMPLE:

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X POST -H "Content-Type:application/json" -d '{"filter":"alc","values":[6]}' https://api.adscanner.tv/APIv4/helper/getSubcategories
```

RESPONSE: [{"value": 0, "caption": "Select all"},{"value": 9, "caption": "Alcoholic Drinks Group Advertising"},{"value": 2, "caption": "Other Alcoholic Spirits"},{"value": 7, "caption": "Beer Non-alcoholic"}]

4.4.4 GETCOMPANIES

Request:

PROPERTY	TYPE	DESCRIPTION	REQUIRED
"filter"	string	filter text value	Yes (can be empty string)

Table 35. *getCompanies* request properties

Returns a list of Advertiser companies defined in AEOS platform. The list can be filtered by sending "filter" property in the request JSON. Filter can be empty string, in which case it will return all available companies.

Response:

RESPONSE	TYPE	DESCRIPTION
"value"	integer	ID of the Company Object
"caption"	string	Name of the Company object

Table 36. *getCompanies* response properties

EXAMPLE:

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X POST -H "Content-Type:application/json" -d '{"filter":"voda"}' https://api.adscanner.tv/APIv4/helper/getCompanies
```

RESPONSE: [{"value": 1798, "caption": "Vodafone"}]

4.4.5 GETBRANDS

Request:

PROPERTY	TYPE	DESCRIPTION	REQUIRED
"filter"	string	filter text value	Yes (can be empty string)
"values"	array	list of IDs of companies	Yes (must include specific ID of the Company object)

Table 37. *getBrands* request properties

Returns a list of brands defined in AEOS platform, specific to selected company. The list can be filtered by sending "filter" property in the request JSON. Filter can be empty string, in which case it will return all available brands. The request MUST include "values" property, which cannot be empty.

Response:

RESPONSE	TYPE	DESCRIPTION
"value"	integer	ID of the Brand Object. 0 represents "Select all"
"caption"	string	Name of the Brand object

Table 38. *getBrands* response properties

EXAMPLE:

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X POST -H "Content-Type:application/json" -d '{"filter":"","values":["1798"]}' https://api.adscanner.tv/APIv4/helper/getBrands
```

RESPONSE: [{"value": 0, "caption": "Select all"},{"value": 2522, "caption": "Fyve"},{"value": 3723, "caption": "Otelo"},{"value": 24674, "caption": "SIMon mobile"},{"value": 2285, "caption": "Vodafone "}]

4.4.6 GETPRODUCTS

Request:

PROPERTY	TYPE	DESCRIPTION	REQUIRED
"filter"	string	filter text value	Yes (can be empty string)
"values"	array	list of IDs of brands	Yes (ID of the Brand object)

Table 39. *getProducts* request properties

Returns a list of products defined in AEOS platform, specific to selected brand. The product is a specific advertising campaign which can include multiple different advertisements. The list can be filtered by sending "filter" property in the request JSON. Filter can be empty string, in which case it will return all available products. The request MUST include "values" property, which cannot be empty.

Response:

RESPONSE	TYPE	DESCRIPTION
"value"	integer	ID of the Product Object. 0 represents "Select all"
"caption"	string	Name of the Product object

Table 40. *getProducts* response properties

EXAMPLE:

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X POST -H "Content-
Type:application/json" -d '{"filter":"","values":[20544]}'
https://api.adscanner.tv/APIv4/helper/getProducts
```

RESPONSE: [{"value": 0, "caption": "Select all"},{"value": 36152, "caption": "Tierschutzbund"}]

4.4.7 GETCHANNELS

Request:

PROPERTY	TYPE	DESCRIPTION	REQUIRED
"analytics"	boolean	true: get list of analytics channels false: get list of EPG/events channels	Yes

Table 41. *getChannels* request properties

Returns a list of channels defined in AEOS platform, including information if the channel is used for advertisement analysis or not. The list can be filtered by sending "filter" property in the request JSON. Filter can be empty string, in which case it will return all available channels.

Note: if "analytics" parameter is omitted, the returned list contains list of channels which can be used for EPG / Events analysis only. List of channels for Ad Analysis must be retrieved using *"analytics": true* parameter. Channel IDs are different for Ad analysis and EPG / Event analysis.

Response:

RESPONSE	TYPE	DESCRIPTION
"value"	integer	ID of the Channel. 0 represents "Select all"
"caption"	string	Name of the Channel

"analytics"	boolean	true: advertisement analytics available

Table 42. *getChannels* response properties

EXAMPLE:

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X POST -H "Content-Type:application/json" -d '{"analytics": false}' https://api.adscanner.tv/APIv4/helper/getChannels
```

RESPONSE: [{"value": 153, "caption": "DAS ERSTE","analytics": true},{"value": 864, "caption": "ZDF","analytics": true},…,{"value": 868, "caption": "ZDFneo","analytics": false}]

4.4.8 GETEPGCATEGORIES

Request:

PROPERTY	TYPE	DESCRIPTION	REQUIRED
"filter"	string	filter text value	No (can be empty string)

Table 43. *getEpgCategories* request properties

Returns a list of EPG (tv guide) categories defined in AEOS platform. The list can be filtered by sending "filter" property in the request JSON. Filter can be empty string, in which case it will return all available channels.

Response:

RESPONSE	TYPE	DESCRIPTION
"value"	integer	ID of the EPG category Object. 0 represents "Select all"
"caption"	string	Name of the EPG category object

Table 44. *getEpgCategories* response properties

EXAMPLE:

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X POST -H "Content-Type:application/json" -d '{"filter": "tal"}' https://api.adscanner.tv/APIv4/helper/getEpgCategories
```

RESPONSE: [{"value": 10, "caption": "Talkshow"}]

4.4.9 GETPROFILES

Returns a list of viewer segments, which are created by analyzing viewing behavior.

Response:

RESPONSE	TYPE	DESCRIPTION
"value"	integer	ID of the Profile object.
"caption"	string	Name of the Profile object
"hidden"	boolean	true: the profile is hidden in the Cockpit
"disabled"	boolean	true: the profile cannot be used in data request

Table 45. *getProfiles* response properties

EXAMPLE:

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X GET -H "Content-Type:application/json" -d '' https://api.adscanner.tv/APIv4/helper/getProfiles
```

RESPONSE: [{"caption": "CASUALS","value": 1, "hidden": false, "disabled": false},{"caption": "REAL TV FANS","value": 2, "hidden": false, "disabled": false},…,{"caption": "TENNIS","value": 66, "hidden": false, "disabled": false}]

4.4.10 GETUSERDATEINTERSECT

Returns date range of available data for the user running the request. If the user in data request uses date range outside of this range, it will be limited to this range.

Response:

RESPONSE	TYPE	DESCRIPTION
"date_range"	array	array containing 2 values: start date and end date

Table 46. *getUserDateIntersect* response properties

EXAMPLE:

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X GET -H "Content-Type:application/json" -d '' https://api.adscanner.tv/APIv4/helper/getUserDateIntersect
```

RESPONSE: {"date_range" : ["2021-01-01", "2021-12-30"]}

4.4.11 GETDAYPARTS

Returns list of predefined dayparts which can be used in data requests.

Response:

RESPONSE	TYPE	DESCRIPTION
"value"	string	ID of the Day part object
"caption"	string	Name of the Day part object

Table 47. *getDayParts* response properties

EXAMPLE:

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X GET -H "Content-
Type:application/json" -d '' https://api.adscanner.tv/APIv4/helper/getDayParts
```

RESPONSE: [{"caption" : "6 - 9", "value" : "6 - 9"}, {"caption" : "9 - 11", "value" : "9 - 11"}, {"caption" : "11 - 13", "value" : "11 - 13"}, {"caption" : "13 - 17", "value" : "13 - 17"}, {"caption" : "17 - 20", "value" : "17 - 20"}, {"caption" : "20 - 23", "value" : "20 - 23"}, {"caption" : "23 - 0", "value" : "23 - 0"}, {"caption" : "0 - 3", "value" : "0 - 3"}, {"caption" : "3 - 6", "value" : "3 - 6"}]

5 DEPRECATED METHODS

Deprecated methods are scheduled to be removed from use in the next iteration of AEOS API update. We strongly urge all AEOS API customers to migrate all processes to new methods as soon as you are informed of deprecation, because AEOS cannot guarantee duration of availability of deprecated methods.

5.1 LIST OF DEPRECATED METHODS

5.1.1 GETADVERTISEMENTSPOTLISTREPORT

Method "getAdvertisementSpotlistReport" provides a detailed list of advertisements aired on selected channel, filtered by selected paramaters (i.e. industry, company, etc.) for selected time period. The resulting list contains all attributes available for each advertisemet.

Request:

PROPERTY	TYPE	DESCRIPTION	REQUIRED
"date_from"	string	start date for report	No (can be *null* value)
"date_to"	string	end date for report	No (can be *null* value)
"variable"	string	KPIs to be included in the report	Yes (please use values defined in table "variables")
"channel"	integer	id of the channel for data report. Please use `getChannels` helper method for list of all channels and IDs	Yes (must contain valid channel ID)
"brands"	string array	ids of the brand(s) for data report. Please use `getBrands` helper method for list of all brands and their IDs	No (can be sent as empty array)
"dayparts"	string array	dayparts selection for data report. Please use `getDayParts` helper method for list of all day parts	No (can be sent as empty array)
"weekday"	String array	Filter report based on weekdays	No (can be sent as empty array)
"restrictby"	string	If dayparts, weekdays or epg_categories are used for filtering, must be used	No (null or if weekday, dayparts or EPG categories are used for filtering, this parameter must be used. Values: "dayparts", "weekday", "epg_categories")
"companies"	string array	ids of the conpany(ies) for data report. Please use `getCompanies` helper method for list of all companies and their IDs	No (can be sent as empty array)
"products"	string array	ids of the brand(s) for data report. Please use `getProducts` helper method for list of all products and their IDs	No (can be sent as empty array)
"industries"	string array	ids of the brand(s) for data report. Please use `getIndustries` helper method for list of	No (can be sent as empty array)

		all industries and their IDs	
`"categories"`	`string array`	ids of the brand(s) for data report. Please use `getCategories` helper method for list of all categories and their IDs	No (can be sent as empty array)
`"subcategories"`	`string array`	ids of the brand(s) for data report. Please use `getSubcategories` helper method for list of all subcategories and their IDs	No (can be sent as empty array)
`"epg_categories"`	`integer`	Ids of the epg_categories for data report.	

Table 48. *getAdvertisementSpotlistReport* request properties

The request returns list of all ads aired in selected time period, filtered by request parameters. Please be aware that if mutually excluding properties are included in the request, the result will be an empty data set (i.e. selected company does not correspond to selected product)

The table below lists all response attributes and their description:

ATTRIBUTE	DESCRIPTION
No	Number of the Ad in the list
Occ_id	Occurance ID of the ad (AEOS internal)
Add_id	ID of the Ad (AEOS internal)
Duration	Duration of the ad (in seconds)
Company	Advertiser Company name. List of all companies can be retrieved using `getCompanies` helper method
Brand	Advertiser brand. List of all brands can be retrieved using `getBrands` helper method
Product	Advertised product. List of all products can be retrieved using `getProducts` helper method
Claim	Clain of the advertisement
ADScanner ID	AEOS internal ID
Airing date	Date of the occurance airing
Airing day	Day of the occurance airing (name)
Airing time	Time of the occurance airing (hh:mm:ss)
Airing daypart	Daypart of the occurance airing. List of available dayparts can be retrieved using `getDayParts` helper method
EPG category	EPG category within the ad was aired. List of available EPG categories can be retrieved using `getEpgCategories` helper method
EPG name	Name of the programming
Position in block	positioning of the ad block in relation to the programming, based on EPG data
Industry	Relevant industry of the ad. List of available ndustries can be retrievend using `getIndustries` helper method

Category	Relevant category of the ad. List of all categories can be retrieved using `getCategories` helper method
Subcategory	Relevant subcategory of the ad. List of all subcategories can be retrieved using `getSubcategories` helper method
Country	Airing in which country
Channel	Channel where the ad was aired. List of available channels can be retrieved using `getChannels` helper method
Placement in block	Relative placement in the block of ads. "S" denotes single ad, "A", "B", "C" relative order from 1st ad, "M" any add after 3rd ad, "X", "Y", "Z" last 3 ads in the block
First or last	explicit indication if the ad is "First" or "Last". In case of single ad in block, always marked as "First"
Ads in block	Number od ads in the block
Ad block duration	total duration of ad block in mm:ss
Ad block net duration	net duration of ad block (sum of all ads duration)
Ad block id	Ad block ID (AEOS internal)
XRP	Exact rating point of the ad during airing
Spend	Gross price of the advertisement, based on channels pricelist

Table 49. *getAdvertisementSportlistReport export list of attributes*

EXAMPLE:

```
curl --header "Authorization: Bearer {API token generated in Login step}" -X POST -H "Content-
Type:application/json" -d @request.json https://api.adscanner.tv/APIv4/report/getAdvertisementSpotlistReport
```

request.json:

```
{
  "channel": 26,
  "date_from": "2022-07-01",
  "date_to": "2022-07-03",
  "dayparts": [],
  "epg_categories": null,
  "weekday": [],
  "restrictby": null,
  "variable": "airings",
  "brands": null,
  "products": null,
  "industries": null,
  "categories": null,
  "subcategories": null,
  "companies": null
}
```

RESPONSE:

{ "data": [{"No": 1, "RCH": 1.0490, "XRP": 1.0490, "Brand": "Cupra","Claim": "Dont limit your challenges.", "Spend": 4347, "Add_id": 22190585, "Occ_id": 232275759, "Channel": "RTL","Company": "SEAT Deutschland","Country": "Germany","Product": "Cupra Formentor","Category": "Car Personal Use","Duration": 20, "EPG name": "RTL Nachtjournal - Das Wetter","Industry": "TRANSPORTATION AND AUTOMOTIVE INDUSTRY","Airing day": "Friday ","Ad block id": 92268655, "Airing date": "2022-07-01","Airing time": "00:28:20","Subcategory": "SUV, 4X4 - Terrain Wagon","ADScanner ID": "22190585_062220SEAT DeutschlandCupra Formentor","Ads in block": 1, "EPG category": "Newscast","Occurance id": 232275759, "First or last": "First","Airing daypart": "0 - 3","Ad block duration": "06:23","Position in block": "Between", "Placement in block": "A","Position in block ": 1, "Ad block net duration": "06:06","Before / Within content": "Between"}, …

5.1.2 GETDEEPANALYSISREPORTDATA

Request:

PROPERTY	TYPE	DESCRIPTION	REQUIRED
"report_id"	Integer	Unique identifier of requested report	Yes

Table 50. *getDeepAnalysisReportData* request properties

Returns report data based on the request successfully created and confirmed. Response format depends on the type of report which was requested. If the report is still being created, the request returns the status of creating the report

Response (report in progress):

RESPONSE	TYPE	DESCRIPTION
"status"	String	Status of report creation
"report_id"	Integer	ID of te report request

Table 51. *getDeepAnalysisReportData* response properties, report in progress

Report data response fomat conforms to the following structure:

PROPERTY	TYPE	DESCRIPTION
"body"	array	Array of fields containing report data. Only values, no keys
"header"	array	Array of fields containing respective column name and description for columns as they are presented in "body" property, following the order of columns Each array item is a collection of key-value pairs.

Table 52. *getDeepAnalysisReportData* response properties, report completed

Header property can contain the following items:

PROPERTY	TYPE	DESCRIPTION
"key"	string	Header item, contains long name of data column
"item"	string	Header item, contains short name of data column
"format"	string	Header item, optional. Contains format of data field
"offset"	integer	Header item, optional, internal use
"parent"	string	Header item, optional, internal use
"warning"	boolean	Header item, optional, internal use

Table 53. *getDeepAnalysisReportData* header response properties, report completed